REMARKS

Applicants have carefully reviewed the Final Office Action dated February 9, 2005. Claims 1-26 remain pending in the application. Claims 1-10 were rejected and claims 11-26 were withdrawn from consideration.

Claim Rejections—35 U.S.C. § 102

Claims 1-3 were rejected under 35 U.S.C. § 102(e) as being anticipated by Ferrera et al. (U.S. Patent No. 6,240,231). Applicant respectfully traverses the rejection.

Ferrera et al. do not disclose a support member comprising a first layer disposed over at least a portion of the outer surface of an inner member, "the first layer including a selectively curable material, the first layer further comprising first and second portions of the selectively curable material; wherein the first portion of the selectively curably material is at least partially cured and the second portion of the selectively curable material is either uncured or cured to a lesser degree than the first portion of the selectively curable material" as claimed in claim 1.

Thus, any support member that claim 1 reads on must have a selectively curable material. (Applicant does not dispute that Ferrarra et al. disclose "a UV curable adhesive." Column 4, line 2.) The selectively curable material of this support member must have two portions, a first portion that is at least partially cured and a second portion that is uncured or cured to a lesser degree than the first portion. These two portions are structurally different from one another and the claim language requires them to be structurally different from one another. Curing is a process that produces molecular changes in a material. A material that is cured has more links or bonds within and between molecules than one that is uncured. The greater degree of curing produces a stiffer material. Curing is also a process that is dependent on variables such as time, temperature, and chemical or radiation exposure. Thus, one can vary the amount a material is cured by, for example, exposing it to a higher temperature for a longer time, etc. If a portion of one material is cured less than another portion of the same material, it will have different physical properties. For example, it will be softer or more flexible. Further, these different physical properties are the result of physical differences between the two materials on a molecular scale. As described above, there may be more bonds or links between hitherto separate molecules, or molecules may have different shapes that interact differently. Thus, a

support member that claim 1 reads on has two portions of a selectively curable material that are structurally different from one another; they do not merely have different flexibilities, they have different structure on a molecular level.

Ferrara et al. do not disclose an embodiment having these two portions. Ferrara et al. disclose "an epoxy, a UV curable adhesive" in column 4, l. 2., but nowhere disclose that this material has a first portion different from a second portion in that the first portion is at least partially cured and the second portion is uncured or cured to a lesser degree. This physical structure (i.e., two portions cured to different degrees) is not disclosed by Ferrara et al., nor is it inherent in the embodiments described by Ferrera et al.

Under MPEP 2112, for an element to be inherent, that element must necessarily come from what has been disclosed. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

In Ferrara et al., a material having two portions cured to different degrees is not inherent. A curable material may be left uncured or may be cured uniformly.

Because Ferrera et al. do not disclose each and every element of the claimed invention, Applicant submits that claim 1 is in condition for allowance. As claims 2-3 depend from claim 1 and contain additional elements, Applicant submits that these claims are in condition for allowance as well.

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Soltesz (U.S. Patent No. 5,836,925). Applicant respectfully disagrees and traverses the rejection.

Soltesz discloses a method of manufacturing a variable stiffness catheter where an electrostatic powder coating is applied to a wire or mandrel in a non-uniform manner and then fused to form a layer by passing the wire through a curing oven. The variable flexibility is a result of the thickness of the coating and the materials used in the coating.

A support member or catheter shaft that claim 1 reads on would have to include a selectively curable material, a first portion of which is at least partially cured and a second portion of which is uncured or cured to a lesser degree than the first portion (resulting in a selectively curable material having differing characteristics and physical structure, as described above). Soltesz does not describe such a support member for a catheter. The powder-coating process described by Soltesz is not a curing process. As described in column 4, lines 16-17, it is a melting process: "the powder melts and becomes a tubular polymeric film." The smaller polymeric particles of powder melt and thereby fuse into a single tubular polymeric film. Because this can happen with no molecular changes (e.g. the process could be a thermoplastic and not a thermoset process), this melting process is not a curing process.

In any case, Soltesz does not describe selectively curing to produce two portions of the material that are cured to different levels. Because claim 1 includes elements not disclosed by Soltesz, Applicant submits that claim 1 is in condition for allowance.

Claims 1 and 4-6 were rejected under 35 U.S.C. § 102(e) as being anticipated by Derbin et al. (U.S. Patent No. 6,562,021). Applicant respectfully disagrees and traverses the rejection.

Derbin et al. disclose a variable stiffness electrically conductive catheter shaft where the variable stiffness is supplied by layers of heat shrink polymer encapsulating the one or more conductive members. Derbin et al. claim priority to the same parent application as Ferrera et al. and contain no more pertinent disclosure than do Ferrera et al. Therefore, Applicant submits that claim 1 is patentable over Derbin et al. for the same reasons that claim 1 is patentable over Ferrera et al.; neither disclose a selectively curable material having a first portion that is at least partially cured and a second portion that is either uncured or cured to a lesser degree than the first portion. Applicant further submits that claims 4-6 are patentable as they depend from claim 1 and contain additional elements.

Claims 1-6 were rejected under 35 U.S.C. § 102(b) as being anticipated by Berg et al. (U.S. Patent No. 5,897,537). Applicant respectfully disagrees and traverses the rejection.

Berg et al. disclose a variable stiffness catheter, where the variable stiffness is created by removing material along one or more lengths and replacing it with a different material. Berg et al. disclose a filler material which may include flexible adhesives such as urethane oligomer/methacrylate monomer blends which can be ultraviolet curable. However, Berg et al.

do not disclose a selectively curably material having a first portion that is at least partially cured and a second portion that is either uncured or cured to a lesser degree that the first portion. Because one can cure all the material to the same degree, having two portions cured to different degrees is not inherent in the disclosure of Berg et al.

Applicant therefore submits that claim 1 is in condition for allowance. As claims 2-6 depend from claim 1 and contain additional elements, Applicant submits that these claims are in condition for allowance as well.

Claim Rejections—35 U.S.C. § 103

Claims 7-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrera et al. or Derbin et al. or Berg et al. or Soltesz.

As discussed above, none of these patents disclose the element of claim 1 of a selectively curable material having a first portion that is at least partially cured and second portion that is either uncured or cured to a lesser degree that the first portion. As claims 7-10 depend from claim 1 and contain additional elements, Applicant submits that these claims are in condition for allowance.

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Henry J. Pepin

By his Attorney,

Date: 4/7/05

David M. Crompton, Reg. No. 36,772
CROMPTON, SEAGER & TUFTE, LLC
1221 Nicollet Avenue, Suite 800
Minneapolis, MN 55403-2420
Telephone: (612) 677-9050
Facsimile: (612) 359-9349